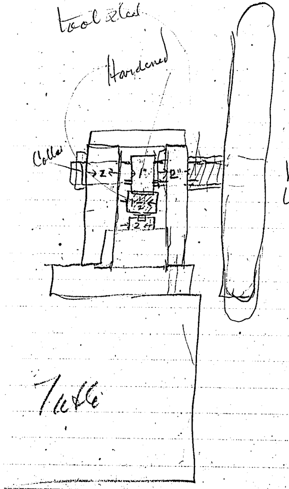
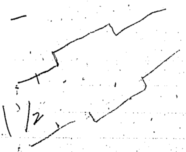
Unbound Notes and Drawings (Undated)

This folder contains undated notes and drawings, probably from the period 1899-1910. Included are items by Edison regarding storage batteries and the layout of a battery manufacturing plant. Also included are a group of drawings by Edison, found with the label "magnetometer descriptions"; an unfinished draft of a patent application for molded disc records; and a lengthy set of draft specifications and calculations by an unidentified employee.

Approximately 40 percent of the documents have been selected. The items not selected consist of material by experimenters other than Edison.

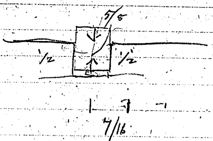
[FOUND IN FOLDER: "MAGNETOMETER DESCRIPTIONS"]


tool steel
Hardened
Collar
2
1"
2"
1 1/2
2
Table
Hand
wheel left hand

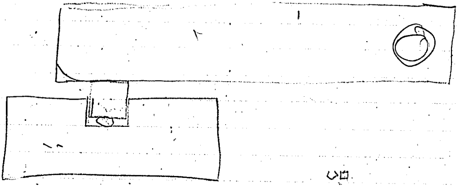


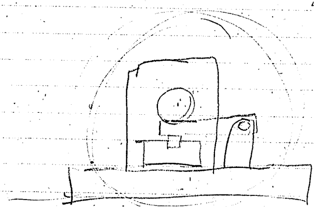
Moves down $\frac{1}{8}$ inch — in 3/4 Revolution —

Where diamond Vary will use different plungers for heighth —

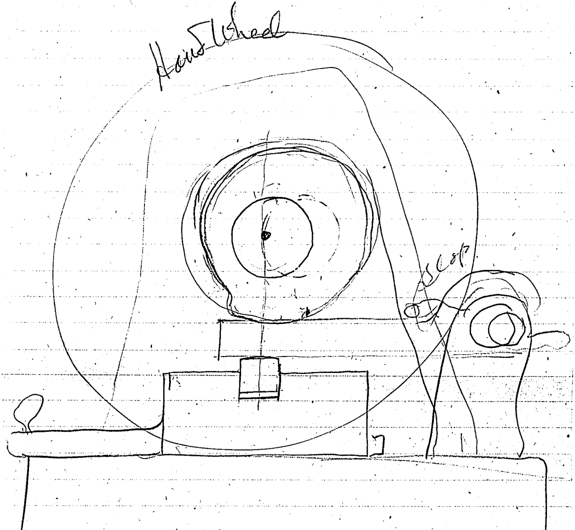


[FOUND IN FOLDER: "MAGNETOMETER DESCRIPTIONS"]





[FOUND IN FOLDER: "MAGNETOMETER DESCRIPTIONS"]


Hand Wheel
Stop

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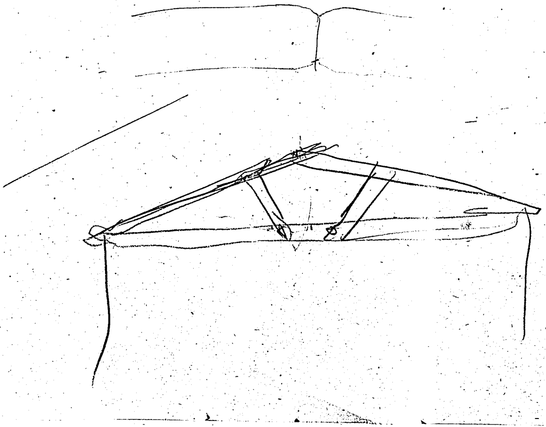


Phono

File sketch

The object of this invention is to produce a phonographic record in metal whereby the wearing qualities of such records shall be increased and also to render audible the very weak overtone vibrations which in a soft record are generally worn away very quickly by the reproducing mechanism

one form of
The invention consists in producing a sound record in wax upon a flat disk in the form of a Volute spiral coating the whole of the surface of the record with a Conducting film preferably by the Vacuum process described in my patent ———— ———— upon the film is a heavy plating of ~~[illegible]~~ nickel ~~or copper~~ preferably nickel – about 1/32 of inch thick upon this is plated Copper to Extent of 1/8 inch – The Matrix after the opposite face to the record is turned true is placed in a cylinder having a bore almost Exactly the diameter of the Matrix, over this is placed a sheet of polished metal preferably steel about 3 to 4/1000 of inch thick, on top of this is placed a disc of very soft Rubber about

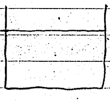
1/2 inch thick a piston then is placed on top ~~which piston is placed~~ the whole is placed in a hydraulic press and the piston subjected to a pressure of many tons, according to the size of the record, The pressure acting upon the rubber causes the thin sheet of metal to be forced into the sound record ~~The rubber~~ producing a perfect copy of the record on the matrix Rubber being practically non-Compressible acts like water in a hydraulic press The record is then removed & others inserted thus giving an almost unlimited multiplication of Copies ~~The Front may be [illegible] for nickel~~ The nickel surface of the ~~Di~~ Matrix is very hard but if desirable Iron can

65

①

5 ft tank Equivalent to 180 inches 15ft circumfer-
grids 1 ft apart – 15 in acid – 1 Rev 10
minutes, 6 hour 8 hours 48 Rev –
15 to Rev – 48
15
240
48
720 cells per day A4 –
This is Enough — One man does it

Woodrack holding grids in present tank
128 A4 grid – 3 days with glycerine – with
a little Alkali working — This is drawn off
+ a very weak Alkali Solution put in
+ boiled 3 days – Then Removed
put in racks being hot will be dry
over night –



in reduction tank when empty
the water is put into it up to
a certain mark – Then a
Certain number of liters
of glycerin put in +
Rack holding A4 is lowered
+ boiled for 3 days.

present tank is 5x5 -

Coils in tank No-good, wants tanks with steam bottoms,

Wood (Maple) racks to hold grids -

Raise up + lowered + transferred on a Run way   1 ft water above the grids -

Should have a ~~removable box~~ to condense steam as far as possible, removable with the Rack -

Tanks set up from ground so can have 2 feet under to repair outlet which should be on bottom, bulged to permit all the solution to run out, ③

for dipping parts,

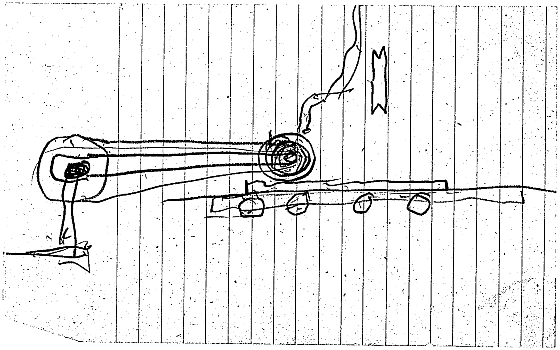
Dip 12 of worst grids 5 minutes in 30% H_2SO_4
wash with water then
dip in 50% Ammonia to get
rid of acid in pores - then wash
& dry over hot plate - ~~[illegible]~~

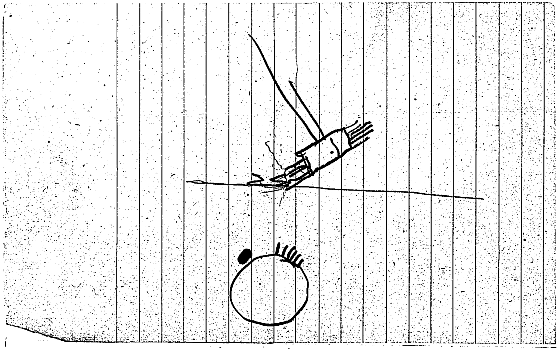
Tie together with fine Iron wire
& take over to storage battery
& have them put in a pot
with Regular stuff & run thru
the Hydrogen -

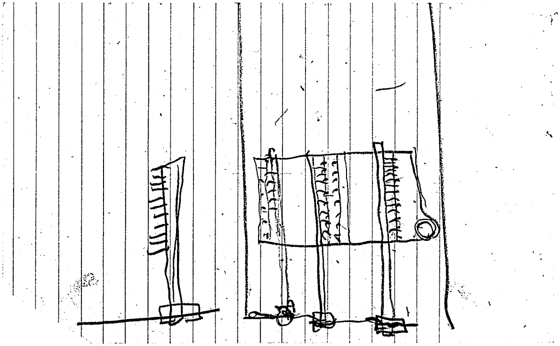
Another Expmt

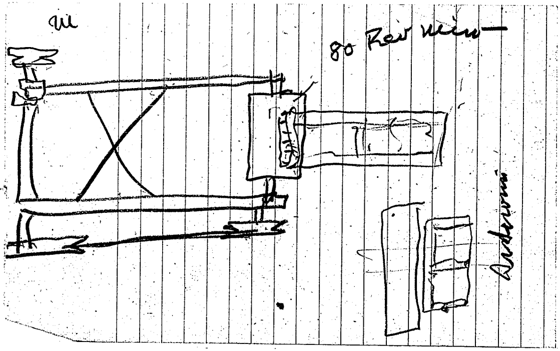
Take 12 worst grids do
same thing as above - after
drying plate nickel on each
seperately. using 10 amperes
for 5 minutes - Wash & dry

by hanging over Hot plate
then bundle them together
+ take over to SB + have
them put them one of
their runs in Hydrogen





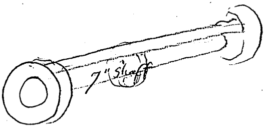


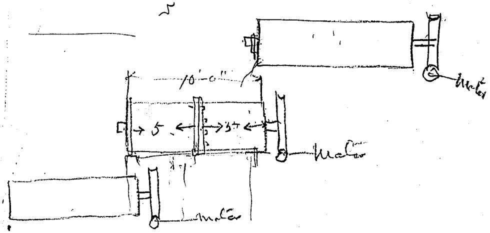

vii
80 Rear view —
Anderson

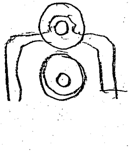
Ralph Abroquist

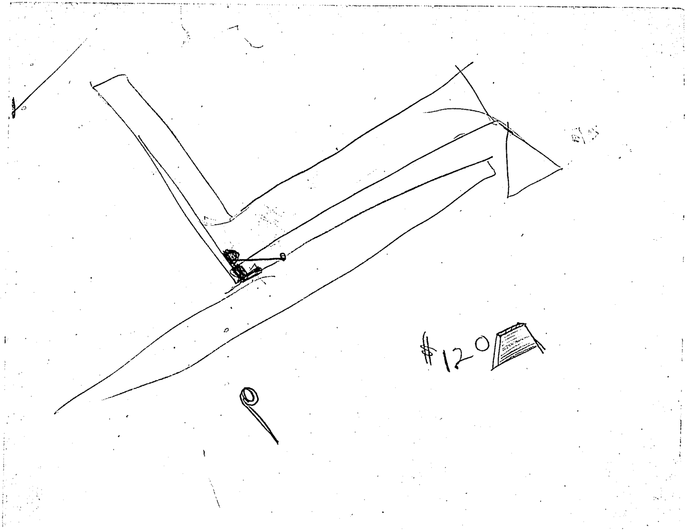
Save me couple drums
of your bye product
Sulphate Soda &
Send over for test
on new air
Evaporator.

Edison

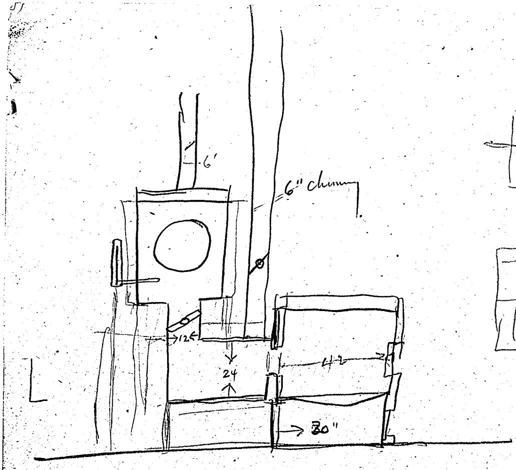

7" Shaft

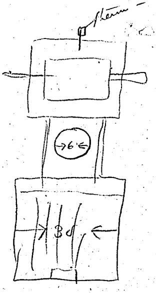

10'-0"
5
3+
Motor
Motor
Motor

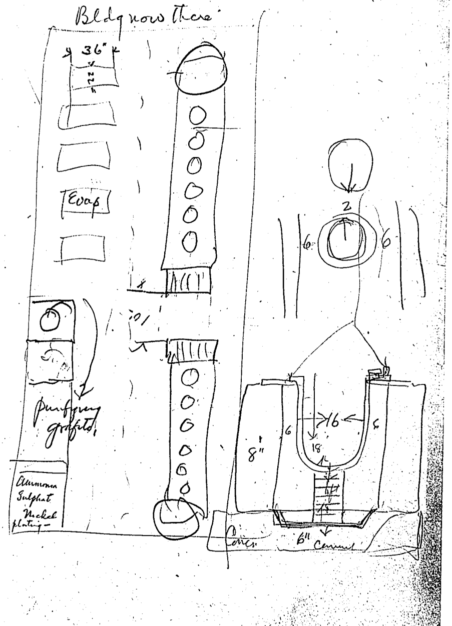




#120


6" chimney
30"


therm
6"
30


Bldg now there
36"
2"
Evap
x
10'
Purifying grafite
Ammonia Sulphat Nickel plating—
2
6
6
16
6
6
18
8"
Conc.
6" Cement

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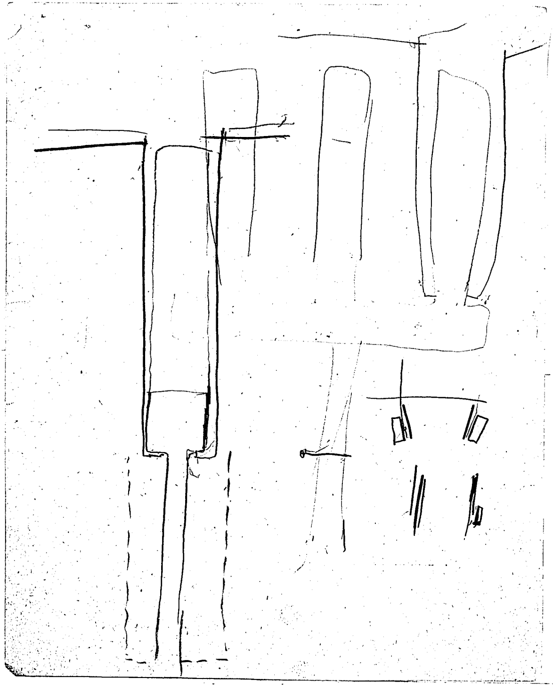
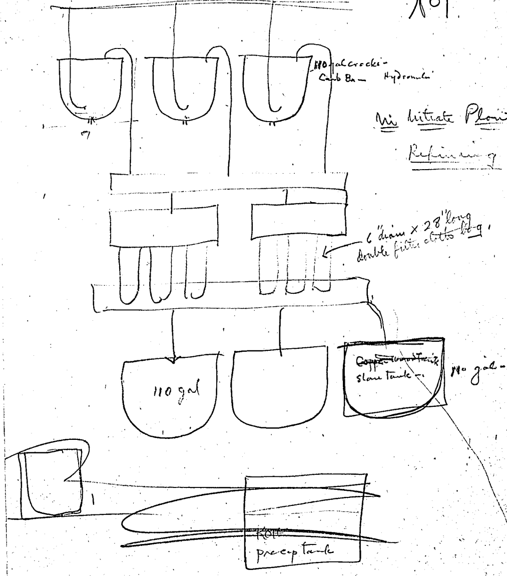
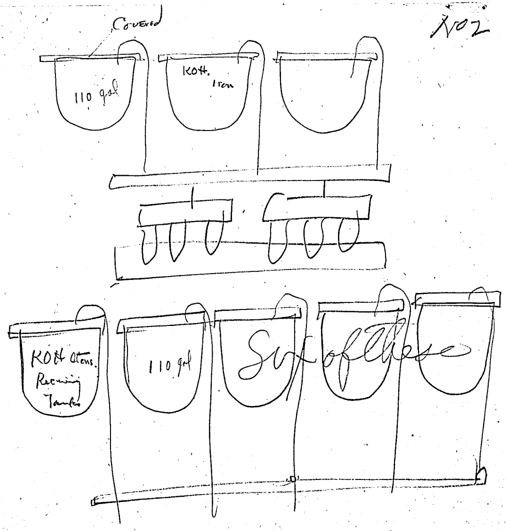


Ni Nitrate Plant

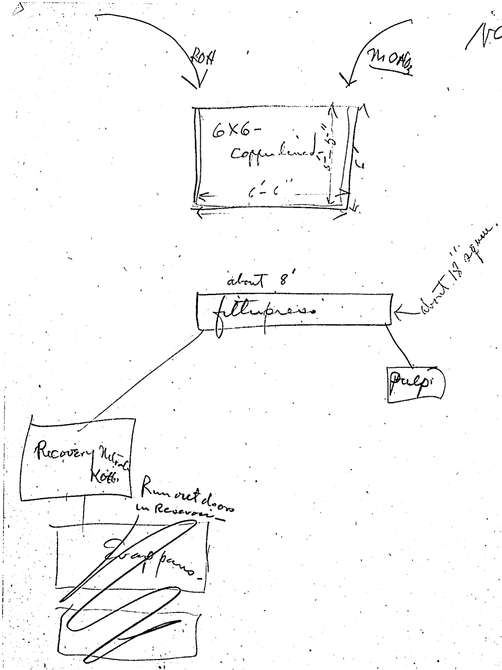
Refining


110 gal crocks –
Carb Ba –
Hydrometer
6" diam × 28" long
double filter cloth ~~bag~~
110 gal
~~Copper wood Tank~~
Stone Tank –
110 gal –
KOH
precip tank

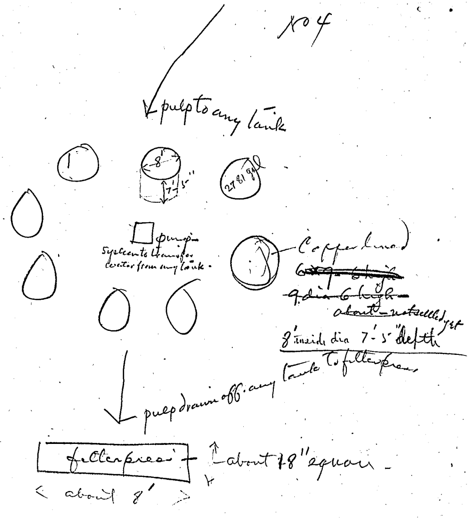
No 2


Covered
110 gal
KOH, Iron
KOH Cleans. Receiving Tanks
110 gal
Six of these

No 3

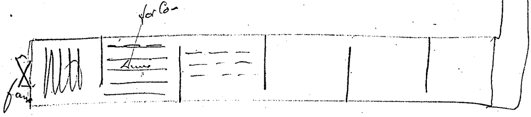

ROH
MOAc2
6X6-
copper lined
5'-5"
6'-6"
about 8'
filter press
about 18" square
Pulp
Recovery Alcohol Kettle
Run out doors in Reservoir
~~Soap pans~~

No 4

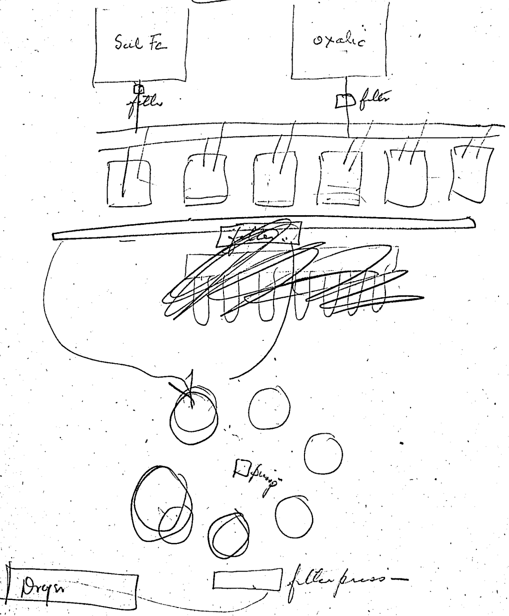

pulp to any tank
1
8'
7'-5"
2781 gal
pump
system to transfer water from any tank.
Copper lined
~~6 x 9 - 6 high~~
~~9 dia 6 high~~
~~about~~ - not settled yet
8' inside dia 7'-5" depth
pulp drawn off any tank to filter press
filter press
about 18" square
about 8'

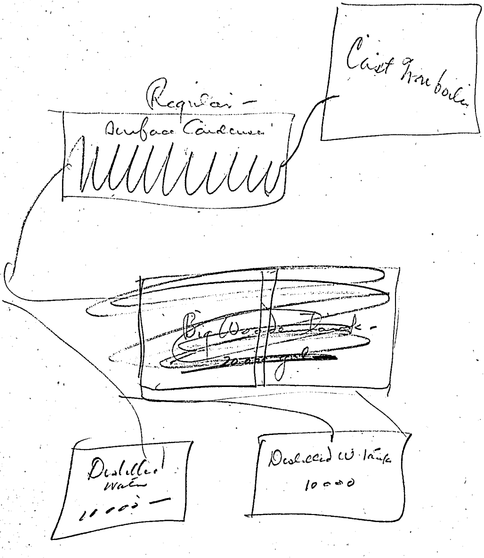
No 5 —

pulp to Dryer —

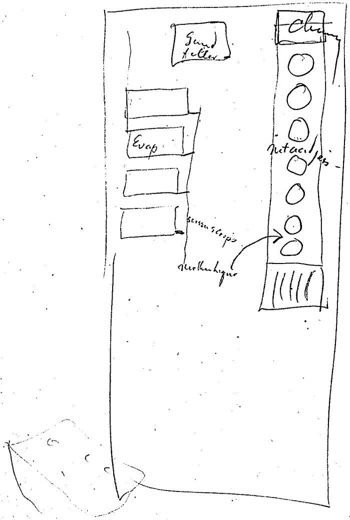

for Co-
Lime
fan

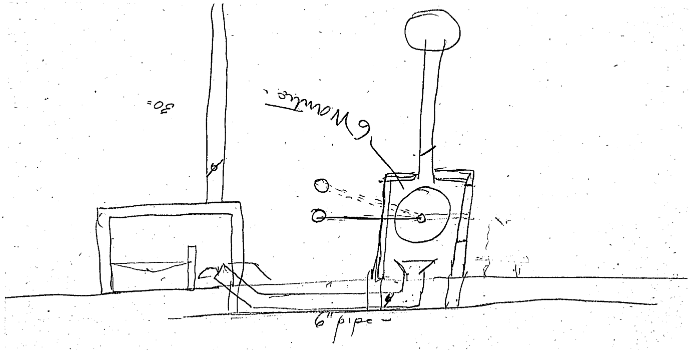
Oxalate Fe

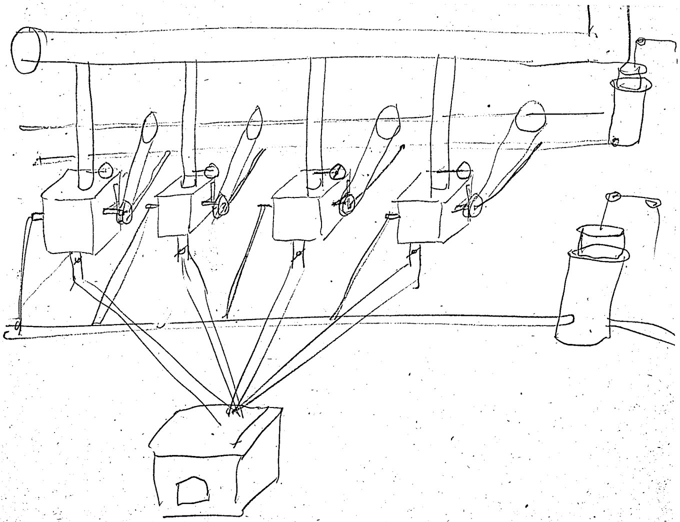

Sul Fe
oxalic
filter
filter
filter
pump
Dryer
filter press —

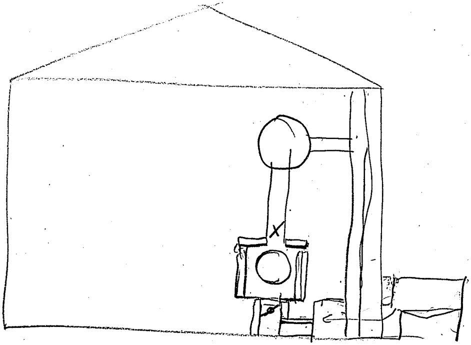

Cast Iron boiler
Required -
Surface Condenser
Big Wooden Tank -
20,000 gal
Distilled Water
10,000 -
Distilled W. Tank
10000

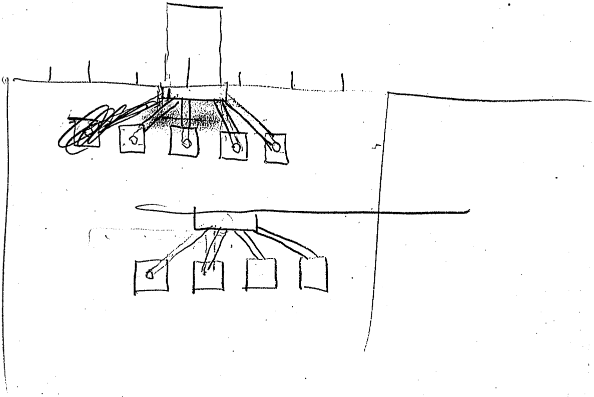
Lalande Bldg —

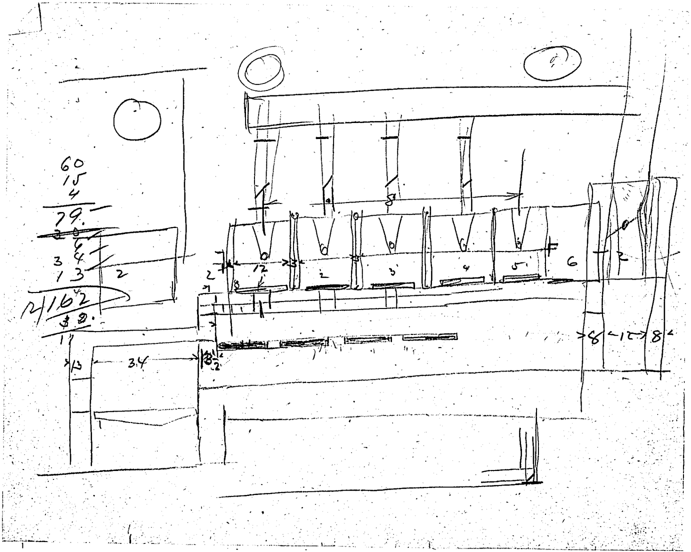

Sand filter
Chimney
Evap
Nitacid jets
screen scraps
mother liquor

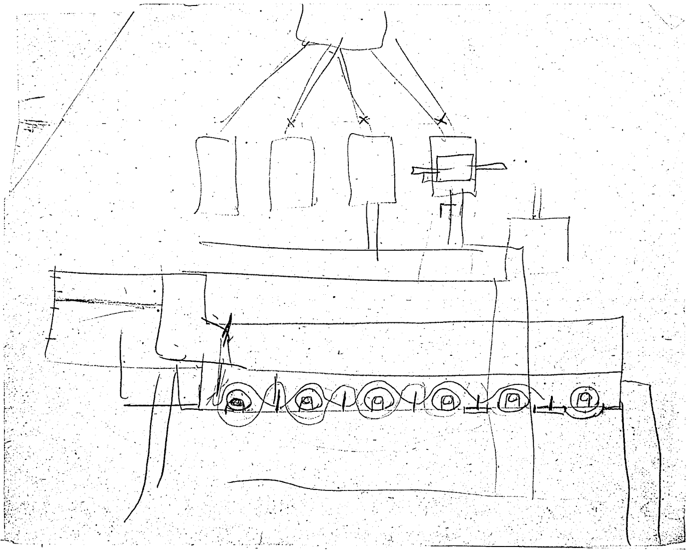

30=
6 Nantic.
6" pipe

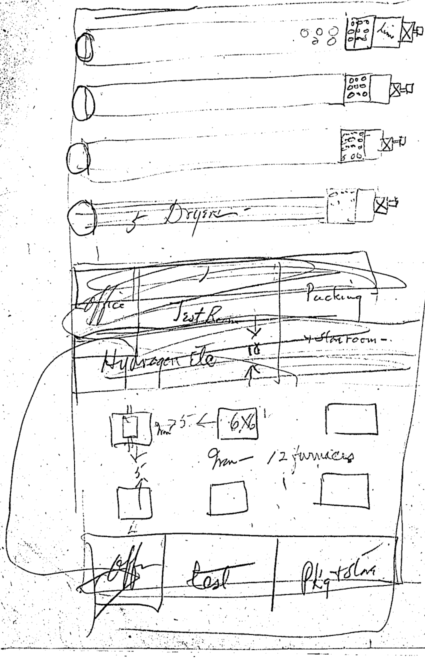


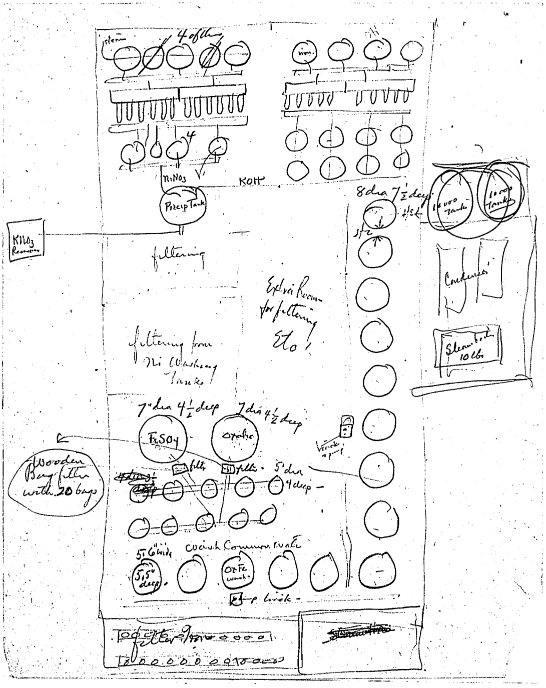

X

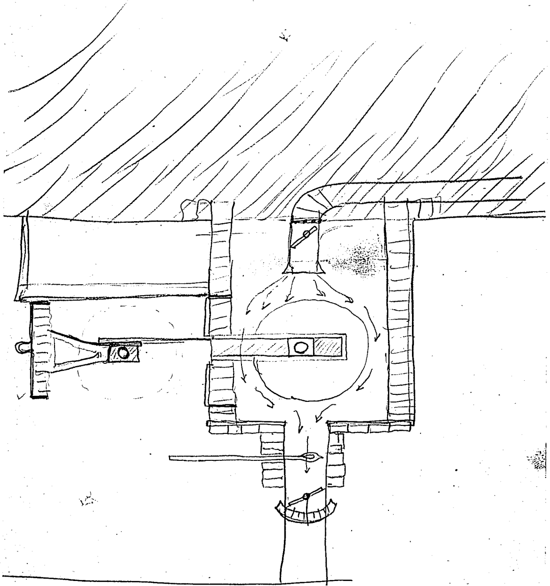


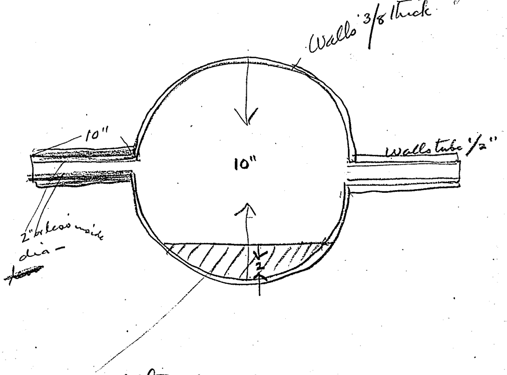

60
15
4
79.
6
4
3
13
2
2
12
3
2
3
4
5
6
2
8
12
8
13
34
13½

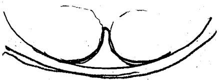


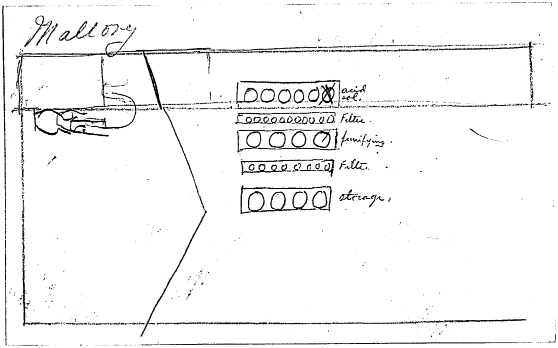

5 Dryers
Office
Test Room
Packing
+ Stor room
Hydrogen Ele
18
75'
6X6
12 furnaces
5'
~~Off~~
~~test~~
Pkg + Stor

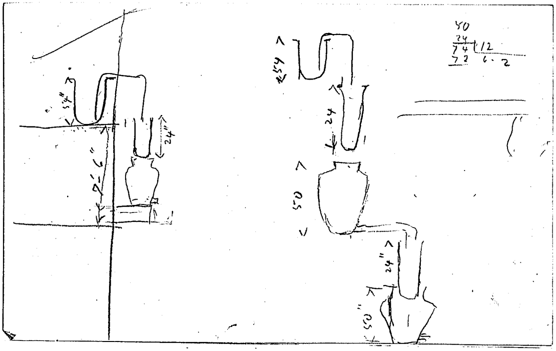

4 of these
NiNO3
KOH
Precip Tank
KNO3 Reservoir
filtering
Extra Room for filtering Etc!
filtering from Ni Washing Tanks
8 dia 7½ deep
H2S
H2
16000 Tanks
10000 Tanks
Condensers
Steam boiler 10 lbs
7' dia 4½ deep
7 dia 4½ deep
FeSO4
Oxalic
filter
filter
5' dia 4 deep
Wooden Bag filter with 20 bags
5' 6" wide
which Communicate
5' 5" deep
Ox Fe. washing
pump
filter
~~Steam~~

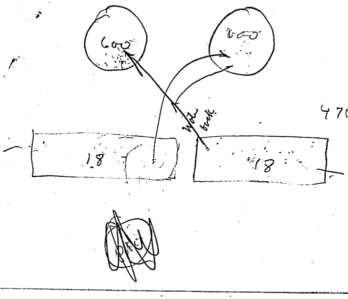



Walls 3/8 thick
10"
10"
Walls tube 1/2"
2" or less inside
dia –
2
3 of these




Mallory
acid sol.
Filter.
purifying.
Filter.
storage,


54"
24"
7'-6"
54
24
50
24"
50"
40
24
74
72
12
6.2


600
800
Work back
18
18

600
12
1200

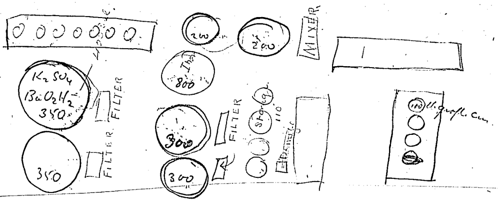
5000

4200
500
4700

4700 : 500 : 100 : 6

50000 (4700
4700 10.
3000

300


K₂SO₄
BaO₂H₂
350
350
FILTER
FILTER
FILTER
FILTER
200
200
Thd
800
300
300
MIXER
SF
110
ll. grafl. cm
100

231 | 750
693
570

Barium Hydate 193 : 65 = x : 300

300
57900 | 65
520 | 88
590
580
700

500000 | 6000
48000 | 83
20000

6000
3700
300

13700 | 1
15

84
3
252

400
.06
24.00

3

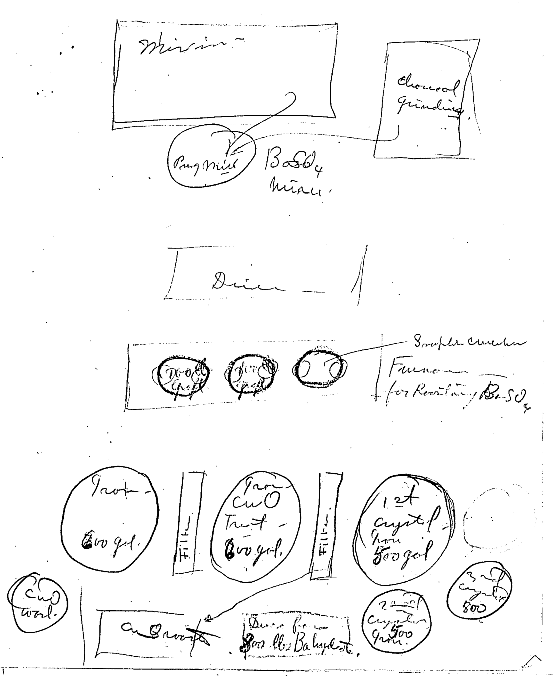
100

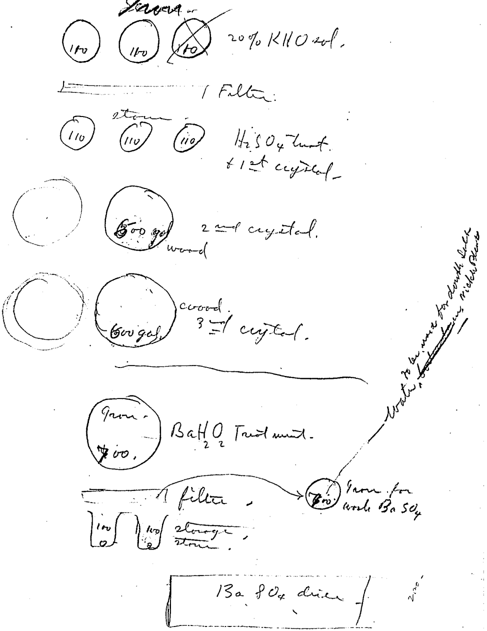
890
15
4450
890
13350
700
12650

.700

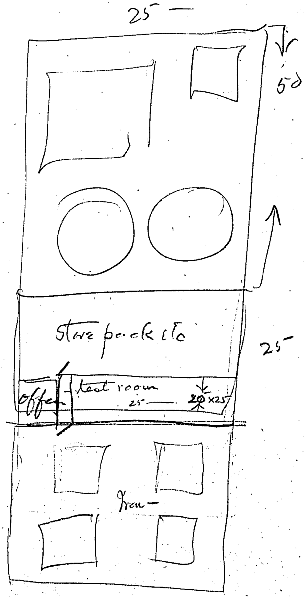
2.00
24

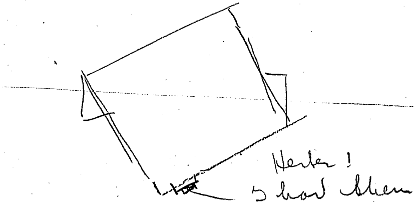
12650 | 300
1200 | 42 (3)
650 | 14
600
500

Mixing
Charcoal grinding
Pug mill
$BaSO_4$ mixer
Drier
Graphite crucibles
200 gal
200 gal
Furnace for Roasting $BaSO_4$
Iron 800 gal.
Filter
Iron CuO Treat 800 gal.
Filter
1st crystal Iron 500 gal
CuO wash
~~Concentrate~~
Dryer for 800 lbs Ba hydrate.
2nd crystal 500 Iron.
3rd crystal 800



Iron
110
110
110
20% KHO sol.
1 Filter:
stone
110
110
110
H_2SO_4 treat.
+ 1st crystal
600 gal
wood
2nd crystal.
wood.
600 gal.
3rd crystal.
Iron
700.
BaH_2O_2 Treatment.
1 filter
100
100
storage
stone.
700
Iron for wash $BaSO_4$
Water, to be used for double salt
nickel plants
$BaSO_4$ drier
200


25 —
50
Store pack etc
25
Office
test room
25 —
20 x 25
Tran —

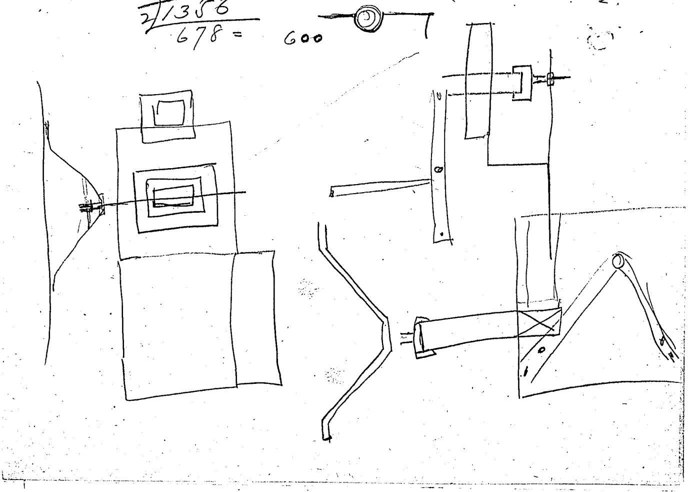


Herter!

I had them change the position of the plug. as shown here – Ralph.

[ON BACK OF PRECEDING PAGE]

113×12
2)1356
678 =
600

15
4½